



SOLID STATE DEVICES, INC.

14830 Valley View Blvd * La Mirada, Ca 90638

Phone: (562) 404-7855 * Fax: (562) 404-1773

ssdi@ssdi-power.com * www.ssdi-power.com

Designer's Data Sheet

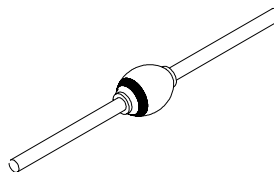
FEATURES:

- **Fast Recovery: 250 nsec maximum.**
- **PIV to 1000 Volts.**
- **Low Reverse Leakage Current.**
- **Hermetically Sealed.**
- **Single Chip Construction.**
- **Replaces Larger DO-4 Rectifiers**
- **Low Thermal Resistance**
- **TX, TXV, and Space Level Screening Available**
- **Ultra Fast and Hyper Fast Recovery Available. Contact Factory.**

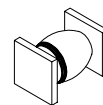
SDR9JF & FSMS thru SDR9MF & FSMS

**9 AMP
800 - 1000 VOLTS
250 nsec
FAST RECOVERY
RECTIFIER**

AXIAL



SURFACE MOUNT
(SMS)



Maximum Ratings		SYMBOL	VALUE	UNITS
DC Blocking Voltage	SDR9JF & FSMS	V_{RRM}	600	Volts
	SDR9KF & FSMS	V_{RWM}	800	
	SDR9MF & FSMS	V_R	1000	
Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, $T_A = 25^\circ\text{C}$)		I_o	9	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave Superimposed on I_o , allow junction to reach equilibrium between pulses, $T_A = 25^\circ\text{C}$)		I_{FSM}	150	Amps
Operating and Storage Temperature		T_{OP} & T_{STG}	-65 TO +175	$^\circ\text{C}$
Maximum Thermal Resistance				
Junction to Lead, L = .125" (Axial Lead)		$R_{\theta JL}$	8	$^\circ\text{C/W}$
Junction to End Tab (Surface Mount)		$R_{\theta JE}$	4	

NOTE: All specifications are subject to change without notification. SCD's for these devices should be reviewed by SSDI prior to release.

DATA SHEET #: RC0056A

SDR9JF & FSMS thru SDR9MF & FSMS

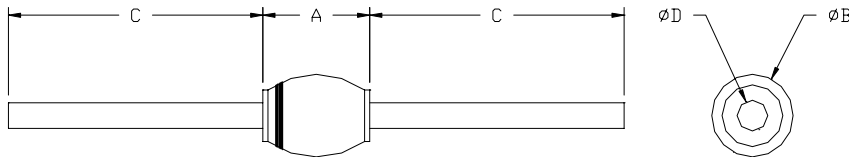


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Electrical Characteristics	SYMBOL	MIN	MAX	UNITS
Instantaneous Forward Voltage Drop ($I_F = 9A_{DC}$, 300 - 500 μ s Pulse) $T_A = 25^\circ C$ $T_A = -55^\circ C$	V_{F1}	--	1.15	V_{DC}
	V_{F2}	--	1.30	
Reverse Leakage Current (Rated V_R , 300 μ s min Pulse) $T_A = 25^\circ C$ $T_A = 100^\circ C$	I_{R1}	--	1.0	μA
	I_{R2}	--	50	μA
Junction Capacitance ($V_R = 10V$, $f = 1$ MHz, $T_A = 25^\circ C$)	C_J	--	50	pF
Reverse Recovery Time ($I_F = 500$ mA, $I_R = 1$ A, $I_{RR} = 250$ mA, $T_A = 25^\circ C$)	t_{RR}	--	250	nsec

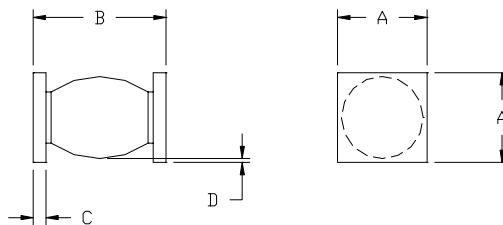
CASE OUTLINE: AXIAL LEAD



DIMENSIONS

DIM	MIN.	MAX.
A	0.210	0.250"
B	--	0.170"
C	1.00"	--
D	.037"	.043"

CASE OUTLINE: SMS



DIMENSIONS

DIM	MIN.	MAX.
A	0.170"	0.180"
B	0.260"	0.300"
C	0.020"	0.030"
D	0.002"	--

NOTES:

Consult manufacturing for operating curves.